

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-004548**Date Inspected:** 03-Nov-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Lvliqing and Hu Wei Qing**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG and SAS Tower Fabrication**Summary of Items Observed:**

On this date, Caltrans Office of Structural Material (OSM) Quality Assurance (QA) Inspector Joselito Lizardo was present as requested to perform observations on the fabrication of Orthotropic Box Girder (OBG) and SAS Tower at Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China.

The QA Inspector has randomly observed the following activities on sub-assembly Bays mentioned below;

Bay 7: OBG - Floor Beam Sub Assembly

This QA Inspector randomly observed ZPMC welder Zhang Qing Quan ID#044774 utilizing the FCAW Process in the 2G (Hor. Groove) Position with WPS-B-T-2232-Tc-U4b-F and a 1.4mm diameter electrode, filler metal brand E71T-1, class Supercored 71H, semi automatic to weld fill pass on web plate to flange tee joint on floor beam FB009-018-045. The QA Inspector randomly observed ZPMC CWI Hu Wei Qing monitoring preheat and weld parameters.

FCAW(2F) fillet welding on flange to web plate FB016-023-weld joints 003 and 009 utilizing the FCAW Process with a 1.4mm diameter electrode, filler metal brand E71T-1, class Supercored 71H following WPS-B-T-2132-3 this QA observed. ZPMC welder Wang Hong Lei ID #066687 was seen performing the task. Tack/fit-up of various stiffeners to web plate on floor beam FB019-002, using TL508 electrode, and following WPS-B-P-2112 was also observed.

This QA performed VT and 10% MT on three floor beams intended for green tagging on FB015-026, FB016-027 and FB011-015. All 3 were found deemed acceptable but due to UT reject on weld joint FB015-026-045, this floor

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beam has not been green tagged.

Bay 8: Tower Diaphragm

This QA Inspector randomly observed ZPMC welder ID number 202654 utilizing the FCAW Process in the 3G (Vertical Groove) Position with a 1.4mm diameter electrode, filler metal brand E71T-1, class Supercored 71H, semi automatic with ZPMC WPS WPS-B-T-2233-B-U3-F, to weld fill pass on groove (bent heavy plate) splice butt joint on Tower Diaphragm Flange Sub-Assembly WSD1-SA414 weld joint 13B. The QA Inspector randomly observed ZPMC CWI Lvliqing monitoring weld parameters. FCAW tack/fit-up of tower diaphragm flange bent plate CJP joints of Tower Diaphragm flange NSD1-SA363 also in progress.

Heat straightening was also observed on 75mm thick tower diaphragm plate marked SA415 due to mill induced distortion. Natural gas was used with heating temperature of less than 600 degree C and following procedure HSR1(T)-5280.

This QA observed ZPMC weld, ID #201583 and ID #067138 utilizing the FCAW Process in the 2F (Horizontal) Position with a 1.4mm diameter electrode, filler metal brand E71T-1, class Supercored 71H semi automatic with ZPMC WPS WPS-B-T-2132 to weld fillet fill pass on fillet weld connection between tower diaphragm plate to diaphragm flange SSD1-SA362-13 and ESD1-SA416-2 respectively. The QA Inspector randomly observed ZPMC CWI Lvliqing monitoring weld parameters.

Summary of Conversations:

No significant conversation occurred today.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Joshua Ishibashi, (858) 232-7081, who represents the Office of Structural Materials for your project.

Inspected By:	Lizardo, Joselito	Quality Assurance Inspector
Reviewed By:	Cuellar, Robert	QA Reviewer
